

HANDELIODENDRON, A NEW GENUS OF SAPINDACEAE

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*With plate 119 and one text figure***Handeliodendron**, gen. nov.

Flores ut videntur hermaphroditi, symmetrici, satis parvi, albescentes; sepala 5, libera, imbricata, ovato-oblonga vel oblonga, obtusiuscula, uninnervia, ciliolata, extus intusque puberula, basin versus ut pedicellus squamulis patelliformibus obsita; petala 4 vel interdum 5, sepalis duplo longiora, imbricata, oblonga, obtusiuscula, basin versus sensim in unguem attenuata, supra basin lamellis 2 elevatis instructa, extus adpresse pubescentia, intus glabra, ciliolata, medio reflexa; discus lateralis pulvinaris, irregulariter lobulatus, latere staminibus opposito concavus, fere aequae latus quam altus; stamina 7, raro 8, inaequalia, longiora petalis subaequilongia, sed ob petala recurvata manifeste exserta, filamentis leviter sursum curvatis, apice excepto villosopilosis, antheris late ovalibus mucronulatis, infra medium dorsum affixis; ovarium late fusiforme, longiuscule stipitatum, in stylum brevem apice stigmatibus 3 brevissimis conicis coronatum attenuatum, triloculare; ovula in quoque loculo 2, alterum erectum, alterum pendulum. Capsula piriformis, leviter 3-loba vel abortu 2-loba vel simplex, stipitata, loculicida, pericarpio coriaceo brunneo lenticellis albidis consperso; semina in quaque capsula 1-4, ovoidea, testa crustaceo-coriacea, atra, nitida, hilo brunneo parvo elliptico, arillo albido duplici circiter semen medium tegente, e trichomatibus cohaerentibus constituto, exteriori hilum cingente ab interiore annulo incrassato separato. Embryo vix curvatus, cotyledonibus plano-convexis fere rectis, basi tantum curvatus et in radiculam dorsalem gracilem in plica testae immersam et fere ad micropylem descendentem contractus.

Arbor alta, cortice griseo, ramulis hornotinis brunneis glabris, annotinis lenticellatis spadiceis. Folia opposita, glabra, digitata, foliolis 5 inaequalibus petiolulatis ellipticis vel elliptico-obovatis, abrupte in acumen caudatum productis, basi late cuneatis in petiolulum decurrentibus, supra laete viridibus subtus pallidioribus et glandulis scutellatis initio fusco-rubris demum nigrescentibus sparse vel sparsissime conspersis, pinnatinerviis, nervis utrinsecus 9-12 patentibus arcuatis supra levissime subtus magis elevatis margine anastomosantibus, costa supra elevata sed in canaliculo plus minusve immersa subtus manifeste elevata; petio-

lis gracilibus teretibus basi tantum leviter sulcatis estipulatis. Panicula terminalis, plus minusve longe pedunculata, pyramidalis, laxa, multiflora, pedicellis squamulosis exceptis glabra, ramulis oppositis, in dichasia pluraque triflora exeuntibus, pedicellis gracilibus squamulosis bracteis bracteolisque deciduis instructis; alabastra ovoidea.

Species unica Chinae provinciae Kweichou incola.

Handeliodendron Bodinieri (Lévl.), comb. nov.

Sideroxylon Bodinieri Léveillé, Fl. Kouy-Tchéou, 384 (1915).

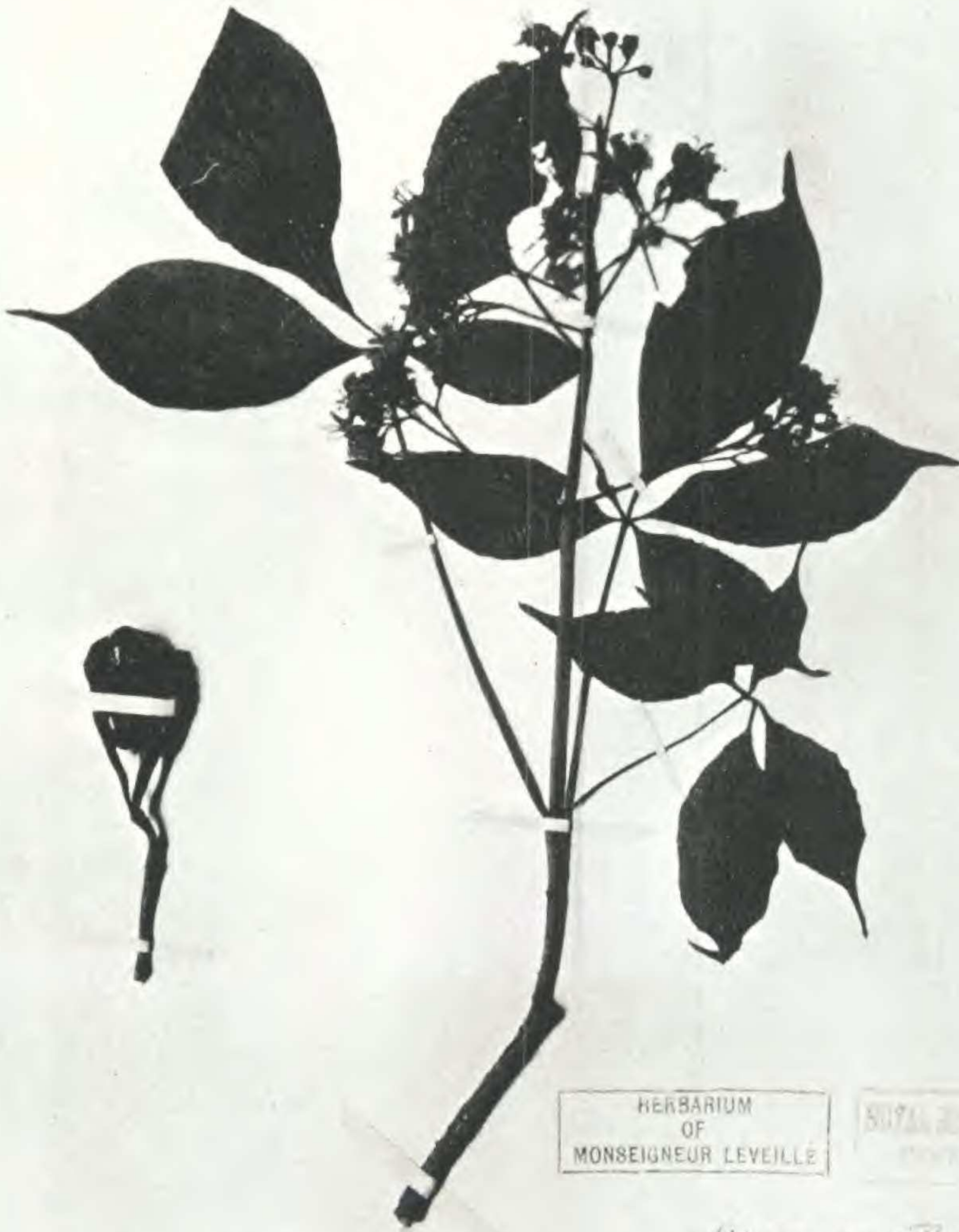
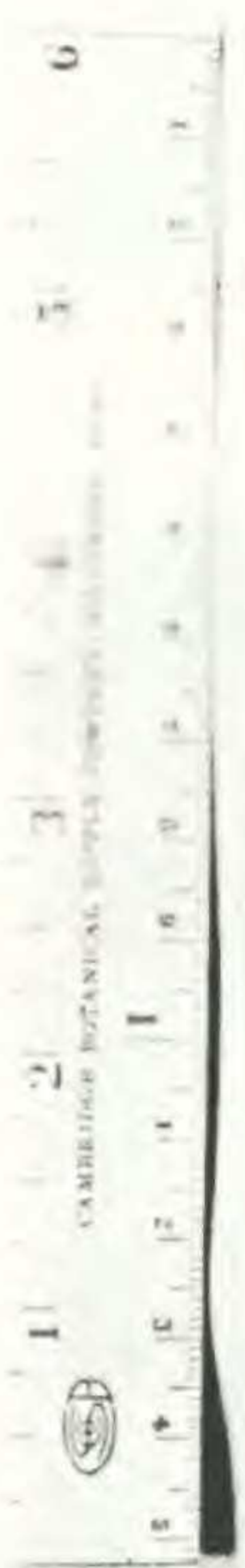
Character generis.

Petiolus 4–11 cm. longus; foliola basalia terminali saepe duplo minora, 3–12 cm. longa et 1.5–6.5 cm. lata, petiolulis 1–15 mm. longis; panicula pedunculo 3–5 cm. longo excluso circa 10 cm. longa et lata, pedicellis 2–5 mm. longis; sepala 2–3 mm. longa; petala 9 mm. longa et 2 mm. lata; stamina 5–9 mm. longa, antheris 0.75 mm. longis; ovarium stylo brevissimo incluso 1.25 mm. longum, stipite 1.5 mm. longo. Capsula stipite circiter 1 cm. longo incluso 3.2 cm. longa; semina circa 1 cm. longa.

CHINA. K w e i c h o u : district de Ly-po, *J. Cavalerie* in herb. Bodinier, no. 2626, Sept. 1898 (fruit), May 11, 1899 “grand arbre” (holotype of *Sideroxylon Bodinieri* in herb. Léveillé, Bot. Gard. Edinb.); Mapo, Pingchow, alt. 500 m., common in light woods, *Y. Tsiang*, no. 6813, Aug. 30, 1930, “tree, bark dark gray, branchlets lenticellate, fruit reddish, seeds black” (in Herb. Nat.-hist. Mus. Wien ex Herb. Metrop. Mus. Nat. Hist. Acad. Sin. Nanking).

Though *Handeliodendron* resembles in its opposite digitately 5-foliolate leaves the Hippocastanaceae, it shows in its other characters a closer affinity with the Sapindaceae and is best placed with the tribe Harpulleae on account of the 2-ovuled locules, the symmetrical flower, the dehiscent fruit, the not spirally curved embryo and the presence of a terminal leaflet. The genus exhibits a number of characters unusual or rare in the family, as the opposite digitate leaves, flowers with 7 stamens, stipitate ovary and a unilateral disk, and seeds with a double arillus and straight embryo. Opposite leaves are very rare in the family, they occur in *Valenzuela* and some species of *Matayba*, digitately 5-foliolate leaves are still rarer and are only found in a few species of *Allophylus* as in *A. dimorphophyllus* Radlk., though ternate leaves occur in a number of genera as *Delavaya*, *Hypelate*, *Llagunoa*, *Thouinia*, and *Allophylus*; also the double arillus is very rare. The wood, but not the bark and other parts of the plant, contains saponin according to Dr. Handel-Mazzetti.

The solitary flowering specimen I have seen has only the terminal



HERBARIUM OF MONSEIGNEUR LEVEILLE

ROYAL BOTANIC GARDEN

Sideroxylon Bodinieri Lév.
Vahl

Province du Kouy-Tchéou (Chine.)

Handeli's dendron Bodinieri (Lévl.) Rehd. gen. nov.

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ARNOLD ARBORETUM

4. XII. 1924

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SIDEROXYLON BODINIERI (Lévl.) Rehd.